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10/772,355	02/06/2004	Tatsuki Nogiwa	2004-0179A	5037

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WASHINGTON, DC 20006-1021

EXAMINER
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GRAYBILL, DAVID E

ART UNIT	PAPER NUMBER
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2822

MAIL DATE	DELIVERY MODE
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11/30/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/772,355

Applicant(s)

NOGIWA ET AL.

Examiner

David E. Graybill

Art Unit

2822

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 27-30,32,38-40 and 42-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 27-30,32,38-40 and 42-44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 February 2004 and 10 July 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the claims 27 and 44 feature, "wherein both a tackiness between the first adhesive holding region and the main body and a tackiness between the second adhesive holding region and the main body are larger than the first tackiness and the second tackiness" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the

examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The amendment filed 9-17-7 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: The entire amendment to paragraph 31:

Applicant is required to cancel the new matter in the reply to this Office Action.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 27-30, 32, 38-40 and 42-44 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The undescribed subject matter is the claims 27 and 44 language, "wherein both a tackiness between the first adhesive holding region and the main body and a tackiness between the

second adhesive holding region and the main body are larger than the first tackiness and the second tackiness."

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 27-30, 32, 38-40, 42 and 43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 27 there is insufficient antecedent basis for the language, "the first surface coarseness" and, "the first coarseness."

In claim 27 there is ambiguously unclear antecedent basis for the language, "the second surface coarseness."

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point

out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Kuhns (20040119593) and Sher (6197397).

At paragraphs 28-33, 40-45, 52, 56 and 65, Kuhns discloses the following:

Re claim 44: A pallet for carrying a circuit board comprising: a main body "liner"; and a holding surface formed on the main body for allowing a circuit board 10 to adhere to the holding surface, wherein the holding surface includes: a first adhesive 19a holding region which has inherent first surface coarseness and is operable to hold the circuit board with a first tackiness ("permanently tacky" and "adhesive strength") which inherently corresponds to the first surface coarseness; and a second adhesive 19b holding region which has inherent second surface coarseness and is operable to hold the circuit board with a second tackiness which inherently corresponds to the second surface coarseness, said first and second adhesive regions being coplanar and capable of holding the circuit board in cooperation; wherein the first adhesive holding region and the second adhesive holding region are arranged parallel to the surface of said main

body; and a tackiness between the first adhesive holding region and the main body and a tackiness between the second adhesive holding region and the main body "liner affixed to the adhesive layer."

However, Kuhns does not appear to explicitly disclose the following:

Re claim 44: the second surface coarseness different from the first surface coarseness, the second tackiness which corresponds to the second surface coarseness and is different from the first tackiness, wherein both the tackiness between the first adhesive holding region and the main body and the tackiness between the second adhesive holding region and the main body are larger than the first tackiness and the second tackiness.

Nonetheless, in the abstract and column 3, lines 33-40, column 3, line 47 to column 4, line 3; column 5, lines 4-12 and 26-32; column 5, line 54 to column 9, line 64, Sher discloses a second surface coarseness "embossing topography" different from a first surface coarseness, a second tackiness which corresponds to the second surface coarseness "the topography of the adhesive surface controls the performance of the adhesion interface" and is different from a first tackiness, wherein both the tackiness between a first adhesive 30 holding region "relative interior" and the main body and the tackiness between a second adhesive holding region "relative perimeter" and the main body "interfaces" are different than the first tackiness and the second tackiness "both major surfaces of adhesive layer 30 can be

microreplicated using the same or different liner(s) 20 to provide the same or different adhesive performance properties at the two different adhesive interfaces during use.”

Moreover, it would have been obvious to combine this disclosure of Sher with the disclosure of Kuhns to provide the second surface coarseness different from the first surface coarseness, the second tackiness which corresponds to the second surface coarseness and is different from the first tackiness, wherein both the tackiness between the first adhesive holding region and the main body and the tackiness between the second adhesive holding region and the main body are different than the first tackiness and the second tackiness because it would facilitate provision of the first and second tackiness and the tackiness between the first adhesive holding regions and the main body of Kuhns.

Although the combination of Kuhns and Sher does not appear to explicitly disclose the tackiness between the adhesive regions and the main body is larger than the first and second tackiness, it would have been obvious to provide this particular relative tackiness because it would facilitate positioning and repositioning of the circuit board on the main body. In any case, the combination of Kuhns and Sher discloses that tackiness is a result effective variable. Therefore, it would have been obvious to try variations of the tackiness variable, including the claimed variations because



"a person of ordinary skill in the art has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense." KSR International Co. v. Teleflex Inc., 82 USPQ2d 1385 (U.S. 2007). See also, Pfizer Inc. v. Apotex Inc., 82 USPQ2d 1852 (Fed. Cir. 2007). Moreover, as reasoned from well established legal precedent, it would have been an obvious matter of design choice bounded by well known manufacturing constraints and ascertainable by routine experimentation and optimization to choose the particular claimed tackiness limitations because applicant has not disclosed that, in view of the applied prior art, the limitations are for a particular unobvious purpose, produce an unexpected result, or are otherwise critical, and it appears prima facie that the process would possess utility using another tackiness. Indeed, it has been held that optimization of range limitations are prima facie obvious absent a disclosure that the limitations are for a particular unobvious purpose, produce an unexpected result, or are otherwise critical. See MPEP 2144.05(II):

"Generally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. '[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine

experimentation.” In re Aller, 220 F.2d 454, 105 USPQ 233, 235 (CCPA 1955). See also In re Hoeschele, 406 F.2d 1403, 160 USPQ 809 (CCPA 1969), Merck & Co. Inc. v. Biocraft Laboratories Inc., 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.), cert. denied, 493 U.S. 975 (1989), and In re Kulling, 897 F.2d 1147, 14 USPQ2d 1056 (Fed. Cir. 1990). As set forth in MPEP 2144.05(III), “Applicant can rebut a prima facie case of obviousness based on overlapping ranges by showing the criticality of the claimed range. ‘The law is replete with cases in which the difference between the claimed invention and the prior art is some range or other variable within the claims. . . . In such a situation, the applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range.’ In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990). See MPEP § 716.02 - § 716.02(g) for a discussion of criticality and unexpected results.”

Applicant's amendment and remarks filed 9-17-7 have been fully considered, are treated supra, and are further addressed infra.

Applicant contends, “From the general discussion of the specification that the FPC 9 is mounted on and then peeled off of the adhesive holding regions, the adhesive holding regions remain on the main body. This clearly means that the tackiness between the main body and the adhesive holding

regions is greater than the so-called first and second tackiness of such first and second regions for holding the circuit board.”

This contention is respectfully traversed because the alleged general discussion of the specification that the FPC 9 is mounted on and then peeled off of the adhesive holding regions and the adhesive holding regions remain on the main body would not clearly mean that the tackiness between the main body and the adhesive holding regions is greater than the so-called first and second tackiness of such first and second regions for holding the circuit board. In fact, the specification provides alternative disclosure. To further clarify, at paragraphs 25-31, applicant discloses that means alternative to the claimed relative tackiness, such as pins and blown air, is provided to enable the FPC to be peeled off of the adhesive holding regions and the adhesive holding regions to remain on the main body, regardless of the relative adhesive tackinesses.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will

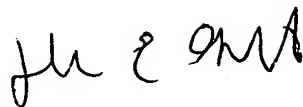
expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

**For information on the status of this application applicant should check PAIR:**

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**Alternatively, applicant may contact the File Information Unit at (703) 308-2733. Telephone status inquiries should not be directed to the examiner. See MPEP 1730VIC, MPEP 203.08 and MPEP 102.**

Any other telephone inquiry concerning this communication or earlier communications from the examiner should be directed to David E. Graybill at (571) 272-1930. Regular office hours: Monday through Friday, 8:30 a.m. to 6:00 p.m.  
The fax phone number for group 2800 is (571) 273-8300.



David E. Graybill  
Primary Examiner  
Art Unit 2822

D.G.  
27-Nov-07